

SN. 09/516134

During a group call, each remote unit (113-118) receives a downlink supplemental transmission (109-110) that contains high-speed data (e.g., video). A single supplemental channel is utilized for each base station (101-102). On the uplink side, the supplemental channel is shared among all remote units, however only one remote unit (113-118) is allowed to transmit at a time utilizing the uplink supplemental channel. A decision is made as to which remote unit is providing a highest-voice-energy fundamental channel uplink, and that remote unit is assigned the uplink supplemental channel. The remote unit, that is currently transmitting utilizing the uplink supplemental channel, has its transmission broadcast (via downlink supplemental channels (109-110)) to all other remote units participating in the multicast.